

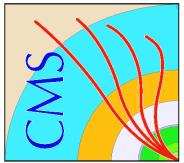


Title

Missing Et trigger at low luminosity

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New features

Groups instead of some packages

- **JetMetParticles**

- JetMetParticles, JetMetParticleInput, JetMetParticleCalibrators, JetMetParticleBuilders

- **MetBuilders (uses JetMetParticles)**

- MetObjects, MetInput, MetCalibrators, MetBuilders

Better separation of code, more OO (inheritance)

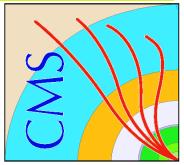
Easy to use out of JetMetAnalysis

Write access to particles and jets (matching, calibration)

class JetMetUserAnalysis : public JetMetGroupAnalysis

- simple but uses the whole stuff because of inheritance
 - event selection





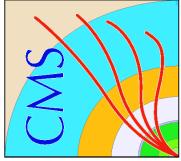
JetMetParticles

HCAL
JET
MET

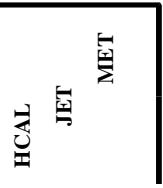
```
class JetMetRawHepParticle : public
    • RawParticle, JetMetRawVertex, JetMetJetId
class JetMetJet : public
    • ConcreteJet, JetMetJetId, JetMetJetContent, JetMetJetCorrection
class JetMetEcalPlusHcalTower : public
    • EcalPlusHcalTower, JetMetJetId
```

Jet finding is done on these objects

- no need for constituent finding
- JetMetId : name, pointer, jet number of matched or container jet
 - filled in JetMetCollection
- JetMetCorrection : calibrated energies
 - filled during particle building
- JetMetJetContent : EM energy for the moment
 - filled during particle building

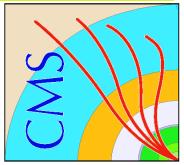


MetBuilders

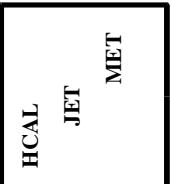


Basically the same classes as a year ago

- object, input, calibration and building is in **separated packages**
- met calibrator classes read the jet calibrator classes
- JetMetSetup defines the jet and met units in the **MetBuilders library**
- easy RecItr in and out of **JetMetAnalysis**
- the user should only know the name of the **RecUnit**
 - e.g. `RecItr<JetMetJet> myJet(event,"JetMetConeARecJetX");`



Jet unit examples

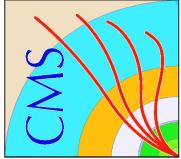


"ConeARecJet"

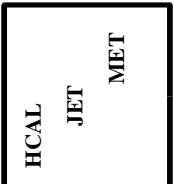
- ConcreteJet from EcalPlusHcalTower (cone = 0.5)
- JetMetConeARecJet

"ConeARecJetX"

- JetMetJet from EcalPlusHcalTower (cone = 0.5)
- JetMetConeARecJetX" **use this one**
- JetMetJet from JetMetEcalPlusHcalTower (cone = 0.5)
- ...
- JetMetConeAGenJetX" **use this one**
- JetMetJet from JetMetRawHepParticle (cone = 0.5)



Met unit examples



MetUnitName = "Met" + C + JetUnitName

- **C for calibration**

- "N" – no pile-up correction
- "L" – low luminosity correction
- "H" – high luminosity correction

"MetLConeARRecJet"

- **ConcreteJet from EcalPlusHcalTower (cone = 0.5)**
- **low luminosity correction**
- **10 instances – 5 noncalibrated (A), 5 calibrated(B)**
- input cases : 1:jet, 2:injet_constituent, 3:outofjet_C, 4:2+3, 5:1+3
 - A4 is the usual uncorrected missing Et (= A5)
 - B5 is the "type 2" corrected missing Et